

REMARKS

I. Introduction

With the addition of new claims 25 to 27 and the cancellation without prejudice of claim 13, claims 1, 4 to 8 and 10 to 12, 14, 15 and 24 to 27 are pending in the present application.

In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 1, 4 to 8 and 10 to 15 Under 35 U.S.C. § 102(b)

Claims 1, 4 to 8 and 10 to 15 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,975,390 ("Fujii et al."). Applicants respectfully submit that Fujii et al. do not anticipate the present claims, as amended herein, for the following reasons.

As an initial matter, claim 13 has been canceled herein without prejudice, thereby rendering the present rejection moot with respect to claim 13.

Claim 1 relates to a micromechanical component. Claim 1 recites the features of a supporting body, at least one at least partially unsupported membrane connected to the supporting body, and at least one stabilizing element provided in an unsupported area on some areas of a surface of the at least one membrane. Claim 1 further recites that the at least one membrane extends continuous over an entire recess etched in the supporting body, and a portion of the at least one stabilizing element contacts only the membrane for a part less than a whole depth of the recess of the membrane and a portion of the at least one stabilizing element is positioned between the supporting body and the at least one membrane. Claim 1 also recites that at least a part of the stabilizing element is exposed to the recess etched in the supporting body wherein the at least one stabilizing element includes at least a ring-shaped skirt arranged around one of recesses and etching holes in the at least one membrane. Claim 1 further recites that the micromechanical component is configured as a thermal membrane sensor and the at least one stabilizing element is configured to counteract a deformation of the at least one membrane. Claim 1 has been amended herein without prejudice to recite that a circuit structure is positioned on the at least one membrane and that the circuit structure includes at least a sensitive component of the sensor element. Support for the amendment to claim 1

may be found, for example, in originally filed claim 13 and page 10, lines 6 to 9 of the Specification.

Fujii et al. purport to relate to a method of fabricating a semiconductor pressure sensor. Fujii et al. do not disclose or suggest sensors other than pressure sensors. Moreover, Fujii et al. do not disclose or suggest, a micromechanical component that is configured as a thermal membrane sensor as recited in claim 1. Fujii et al. do not disclose or suggest any configuration which provides a circuit structure that is positioned on the at least one membrane or that a circuit structure includes at least a sensitive component of a sensor element. As illustrated in Fujii et al. Figure 10d, membrane 5 does not provide any attached components.

Piezoresistive layer 6, which is apparently considered in the Office Action to be a stabilizing element, is used for signal production in the pressure sensor. Col., lines 29 to 30. According to the piezoelectric effect, the electric resistance of the piezoelectric material varies as a function of its mechanical deformation under the influence of external pressure. Col. 1, lines 9 to 17. Thus, the piezoresistive layer 6 situated at the membrane utilizes the deformation of the membrane under the influence of pressure so as to produce a change in resistance as a sensor signal. That is, deformation of the membrane is precisely desired and inevitably necessary and must not be suppressed since otherwise the pressure cannot be measured. An additional circuit structure having a sensitive component on the member is technically not necessary, not disclosed and not suggested by the Fujii et al. reference.

As illustrated in Figure 9e, a pressure sensor with a piezoresistive layer 6 is situated only on membrane 5. Figures 10e and 10d illustrate a piezoresistive layer 6 either on or below membrane 5. One of ordinary skill in the art would not be motivated to position piezoresistive layer 6 on both sides of the membrane 5 because mechanical stabilization is not identified as a concern in the Fujii et al. reference. A person of skill in the art would not be motivated to position a piezoresistive layer 6 on both sides of the membrane 5 as this would be unnecessary from the economic standpoint. Furthermore, as Fujii et al. do not identify any stabilization concerns, placement of a piezoresistive layer 6 on both sides of the membrane 5 is unnecessary.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of

Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that Fujii et al. do not disclose, or even suggest, all of the features of amended claim 1. It is therefore respectfully submitted that Fujii et al. do not anticipate amended claim 1.

As for claims 4 to 8 and 10 to 12, 14 and 15, which ultimately depend from claim 1 and therefore include all of the features of claim 1, it is respectfully submitted that Fujii et al. do not anticipate these dependent claims for at least the same reasons given above in support of the patentability of amended claim 1.

III. New Claims 25 to 27

New claims 25 to 27 have been added herein. It is respectfully submitted that claims 25 to 27 add no new matter and are fully supported by the present application, including the Specification. Since claims 25 to 27 depend from claim 1, it is respectfully submitted that claims 25 to 27 are patentable over the reference relied upon for at least the same reasons more fully set forth above in support of the patentability of claim 1.

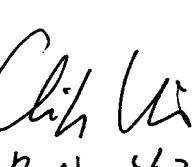
IV. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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